#### 26. INDUSTRIAL HYGIENE PROGRAM

# **Table of Contents**

26.1. INTRODUCTION	1
26.2. REQUIREMENTS	1
26.2.1. Industrial Hygiene Personnel Qualifications	1
26.2.2. Industrial Hygiene Support Requirements	2
26.3. PROCEDURES	4
26.3.1. Qualitative Exposure Assessments	4
26.3.2. Quantitative Exposure Assessments	4
26.3.3. Control Measure Implementation	5
26.3.4. Baseline Monitoring Plan	6
26.3.5. Periodic Review of Proactive Monitoring Strategy	7
26.3.6. Requests for Professional Industrial Hygiene Assistance	7
26.4. INSTRUMENT CALIBRATION	
26.4.1. Direct-Reading Instruments	7
26.4.2. Calibration of Instruments	
26.4.3. General Rules Regarding Instrument Calibration	8
26.5. PERSONAL H <sub>2</sub> S MONITOR PROCEDURE	8
26.5.1. Purpose and Scope	8
26.5.2. Procedures	9
26.5.3. Location and Use of H <sub>2</sub> S Monitor for Protective Force	10
26.6. TABLES: INDUSTRIAL HYGIENE PROGRAM	10

### **26.1. INTRODUCTION**

Industrial hygiene is the branch of science devoted to the control of environmental factors or stressors arising in or from the workplace. New Orleans Industrial Hygienists provide industrial hygiene services for the sites. Other contractors and subcontractors provide their own industrial hygiene services.

The Industrial Hygiene Program is designed to preserve employee health and wellbeing proactively by integrating health hazard anticipation, recognition, and control into line management and employee activities by performing qualitative and quantitative exposure assessments. The program evaluates and controls physical, chemical, biological, and ergonomic stresses found at the SPR sites. This procedure establishes the responsibilities and guidance for the Industrial Hygiene Program.

### **26.2. REQUIREMENTS**

# 26.2.1. Industrial Hygiene Personnel Qualifications

- a. **Certified Industrial Hygienist** Certified by the American Board of Industrial Hygiene after meeting the education, experience, and examination requirements.
- b. Senior Industrial Hygienist
  - 1. A graduate of an accredited 4-year college with a master's degree in Public Health/Industrial Hygiene or other related field (such as Occupational Safety & Health, Chemistry, Environmental Health, Toxicology, etc.) plus 2 years' experience, within

- the last 5 years, in a full-time industrial hygiene position in the disciplines(s) to be encountered in the job activities or,
- 2. A graduate of an accredited 4-year college with a bachelor's degree in Industrial Hygiene or Science (such as Chemistry, Physics, Biology, etc.) plus 3 years experience in a full time industrial hygiene position, within the last 5 years, in the discipline(s) to be encountered in the job activities.

## c. Industrial Hygienist

- 1. A graduate of an accredited 4-year college with a bachelor's degree in an Industrial Hygiene or a related Science (such as Chemistry, Physics, Biology) plus 1 year experience in a full time industrial hygiene position, within the last 3 years, in the discipline(s) to be encountered in the job activities or,
- 2. A person who has successfully completed a course in the Fundamentals of Industrial Hygiene accredited by the American Industrial Hygiene Association (AIHA) or the OSHA Guide to Industrial Hygiene (OSHA 521) within the past 5 years and has 2 years of field experience within the last 5 years in the discipline(s) to be encountered in the job activities.
- d. Industrial Hygiene Technician -- A person who has successfully completed a course in the Fundamentals of Industrial Hygiene accredited by the American Industrial Hygiene Association (AIHA) or the OSHA Guide to Industrial Hygiene (OSHA 521) within the past three years and has one year of field experience within the last year in the discipline(s) to be encountered in the job activities.

# 26.2.2. Industrial Hygiene Support Requirements

The level of Industrial Hygiene support required for a given project or task is determined by using the matrix in Section 26.2.2.2.

### NOTE

Use of this protocol is required for other contractors and subcontractors.

#### 26.2.2.1. Definitions

- a. <u>Certified Industrial Hygienist (CIH), Senior Industrial Hygienist, Industrial Hygienist, Industrial Hygienist, Industrial Hygiene Technical</u> See the qualifications in Section 26.2.1.
- b. On staff Available to participate from an identified stage of a project or task. For some projects, like asbestos removal and disposal, the hygienist must participate from the inception of the project to its performance. Others, the hygienist may begin their involvement at the work planning stage. On staff does not mean "present at the work site." That is covered in the requirements below.

# 26.2.2.2. Risk Assessment and Industrial Hygienist Participation Requirements

#### NOTE

An IH must be involved to some degree for all tasks that are anticipated to involve a chemical exposure or exposure to other IH stressors and must participate in the review and acceptance of any new chemical to be brought on site.

Red	High Risk Hazards
Blue	Medium Risk Hazards
Yellow	Low Risk Hazards
Green	Very Low Risk Hazards

## See SPR Risk Coding Matrix for Risk Definitions

- a. High Risk Hazards (RED)
  - CIH required to be on staff for any job involving asbestos abatement or work around asbestos from the design initiation phase. EPA Certified Project Designer could be substituted for the design phase (only). CIH is required to develop the sampling protocol, ventilation system design, and clearance protocol.
- b. Medium Risk Hazards (BLUE)
  - 1. <u>Senior Industrial Hygienist Required to be on staff for Personal Protective Equipment assessment involving respiratory protection (choice of respirator, cartridge, etc.)</u>
  - 2. <u>Senior Industrial Hygienist</u> Required to be on staff for ventilation system design for jobs such as storage tank cleaning.
- c. Low Risk Hazards (YELLOW)
  - 1. <u>Industrial Hygienist</u> Required for sampling protocol design for construction tasks with the potential for exposure and other (non-construction) tasks having potential for exposure.
  - 2. <u>Industrial Hygienist</u> Required on staff for IH exposure mitigation/elimination planning and oversight.
  - 3. <u>Industrial Hygienist</u> Required on site for high potential exposure tasks such as crude oil tank cleaning, asbestos abatement, etc.
  - 4. <u>Industrial Hygienist</u> Required for review and approval of chemicals not already on the Qualified Product List (QPL). Must be an MOC hygienist.
  - 5. Required for determination or approval of the level of risk identified for the project, job, or task.
- d. Very Low Risk Hazards (GREEN)
  - 1. <u>Industrial Hygiene Technician</u> Required on site for IH exposure assessments and sampling projects.
  - 2. <u>Industrial Hygiene Technician</u> Required on site for IH exposure mitigation/elimination plan implementation.

### NOTE

New hazards are to be assessed and ranked by an Industrial Hygienist, Senior Industrial Hygienist, or CIH.

Matrix for Determination of Industrial Hygiene Staffing Requirement

Level of Hygiene Support	High Risk Hazards	Medium Risk Hazards	Low Risk Hazards	Very Low Risk Hazards
Certified Industrial Hygienist (CIH)	Х	✓	<b>√</b>	✓
Senior Industrial Hygienist		Х	<b>~</b>	✓
Industrial Hygienist			Х	✓
Industrial Hygiene Technician				Х

- **X** Required
- ✓ Acceptable

# 26.2.2.3. Requirements Specific to the Construction Management

Construction Management will comply with the expectations as defined in the Contractors Matrix for Determination of Industrial Hygiene Staffing Requirement as it applies to construction projects managed by Construction Management on SPR sites. A Certified Industrial Hygienist (CIH) is contracted and available to support Construction Management in meeting the requirements outlined in this matrix. In addition to using this matrix, The MOC Safety and Health Procedures, Preliminary Hazard Review (PHR), and the Safety and Health Recommendations Checklist for Construction further address the required qualifications and support of a CIH during Construction Management managed projects.

#### 26.3. PROCEDURES

## 26.3.1. Qualitative Exposure Assessments

The Site Safety Specialist will report any new potential occupational health hazards to the New Orleans Industrial Hygiene (IH) Department. The New Orleans industrial hygienists will conduct exposure assessments estimating the magnitude of potential exposure by reviewing various site information (such as chemical inventories, OSHA 300 logs, work task characteristics, and proposed new material purchases and projects), and examining results of routine inspections and industrial hygiene walkthrough surveys. Assessments will involve input from line managers, supervisors, safety monitors, and employees involved with the assessed task or job.

# 26.3.2. Quantitative Exposure Assessments

Quantitative exposure assessments shall be used to fully characterize the potential exposure associated with an identified health hazard. A New Orleans industrial hygienist is responsible for conducting quantitative exposure assessments, which include analyzing qualitative exposure assessment results, reviewing site monitoring and inspection results, and conducting advanced industrial hygiene monitoring sufficient to adequately characterize worker exposure. Site safety specialists can also perform quantitative monitoring to the extent they are trained under the direction of a senior industrial hygienist.

Identified health hazards that require routine qualitative monitoring by the sites and quantitative monitoring by an industrial hygienist are identified in the Occupational Exposure Index (OEI). The OEI identifies and describes those tasks requiring periodic monitoring.

All monitoring results are compared to the appropriate Occupational Exposure Limits (OELs). All quantitative monitoring results are reported to affected employees via Personal Exposure Monitoring Reports. Monitoring results that exceed an OEL shall be reported to management by the New Orleans IH staff and must include the following data:

- a. the adequacy of controls,
- b. the need for additional controls, or
- c. the need to re-emphasize administrative controls.

Employees shall be given the opportunity to observe the monitoring. The site safety specialist will serve as a focal point for dissemination of the Personal Exposure Monitoring Reports received from the New Orleans industrial hygienist. Employees will sign a copy of the Personal Exposure Monitoring Report, which will express the monitoring results in plain terms. Their signature will indicate that monitoring results have been explained and understood. The employees will receive a copy of the report and the original will be maintained by the site safety specialist. The data is entered in the ESS.

# **26.3.3. Control Measure Implementation**

When an adverse exposure is identified or when applicable requirements are not met, control measures will be defined and implemented. The type of control measure(s) chosen is based on the exposure. Where feasible, engineering control measures, process changes, or material substitution will be used. Administrative controls and personal protective equipment will supplement engineering controls. Preventive control measures such as training and education are also used. The site safety specialist or the industrial hygienist will advise site management and supervision of the correct control measures. Site management and supervision will ensure that the appropriate control measures have been implemented.

### NOTE

Computer equipment, such as keyboard trays, risers, split keyboards, and neutral position mouses shall be used as specified like any other PPE.

When a Similar Exposure Group (SEG) – employees performing the same tasks with the same exposures – is monitored, the industrial hygienist will provide a summary statement to the site safety specialist, who will post it in the work area of the SEG that was monitored. SEG notification paperwork will be briefed to SEG employees and then posted in SEG area frequently used by that SEG (such as the I&C shop for the electrical employees and the Control Room for Operators, etc.) for a period of at least 30 days. This summary statement explains the results of the monitoring (no names will be included) and will provide the following:

- a. location sampled,
- b. tasks performed,
- c. results of sampling and whether results are above any limited levels,
- d. conditions that may have influenced the results,
- e. PPE required, and

f. recommendations that may help reduce exposures and increase employee safety and health.

Results of SEG monitoring will be reviewed with all affected employees by the Site Safety Specialist or Industrial Hygienist. SEG notification paperwork will be maintained with the Personal Exposure Notification forms (after signed by employee). The IH staff will be available to answer any questions by phone.

All employees working in the monitored SEG shall read this summary. If employees have questions or concerns about the summary statement, they should speak with their Site Safety Specialist or contact the New Orleans IH staff by phone.

# 26.3.4. Baseline Monitoring Plan

A Baseline Monitoring Plan has been implemented that includes all SPR sites. Tasks involving exposure(s) to chemical, physical, or biological agents were assessed. Exposure results were compared to applicable OELs and the tasks were classified as "A", "B", or "C", based on this comparison and the risk they pose. Generally, the closer the exposure result is to an OEL, the more often the task is monitored.

- a. "A" ranked tasks require monitoring every year.
- b. "B" ranked tasks require monitoring every 3 years.
- c. "C" ranked tasks require monitoring every 5 years.

Infrequently performed tasks, in which frequent monitoring opportunities were absent, are "A" ranked until monitoring data can be obtained and evaluated. One of the objectives of the IH program is the reduction in the number of "A" ranked exposures through the implementation of exposure control measures.

The OEI organizes all tasks with potential health hazard(s) according to SEGs. Tasks are ranked based on their relative overall risk by a Senior Industrial Hygienist. Factors considered are:

- a. frequency of the task performed,
- b. severity of outcome resulting from exposure,
- c. controls that are in place, and
- d. measured exposure results collected during performance of the task.

This information is used to adjust the ranks as data is collected. If repeated monitoring indicates a lesser impact than originally evaluated, the potential hazard may be moved to a lower level ("B" or "C"). If monitoring indicates a greater than anticipated impact, it may be raised.

#### **NOTE**

At this time, no chemical exposures have been identified that require that baseline monitoring be performed for DOE or their support services contractor personnel working in an office environment in New Orleans.

### The OEI:

- a. Provide an organized method for communicating summarized results to the Site Safety Specialist, line managers, supervisors/foremen, and employees,
- b. Provide the Site Safety Specialist with a strategy for conducting routine monitoring at their site.
- c. Allow quantitative exposure assessments to be prioritized based on relative overall risk.

# 26.3.5. Periodic Review of Proactive Monitoring Strategy

The identification, evaluation, and control of occupational health hazards must be given continuous attention. Health hazards that have been identified and listed in the OEI should be periodically reviewed by the Site Safety Specialist. Health hazards that have not been identified in the OEI should be communicated to the New Orleans IH staff so that they can be included. The New Orleans IH staff will review all assessment results and update the OEI as necessary.

## 26.3.6. Requests for Professional Industrial Hygiene Assistance

When a health hazard has been identified, the Site Safety Specialist will initiate an evaluation of the hazard (see "Procedures" section). The Site Safety Specialist will evaluate the health hazard within his/her capability. The Site ES&H manager, Site Safety Specialist, employees, or the site director can request assistance from a New Orleans industrial hygienist.

### **26.4. INSTRUMENT CALIBRATION**

The primary purpose of calibration is to establish a relationship between the response of the instrument and the value of the property that is measured. The manufacturer initially evaluates and calibrates most equipment to perform to certain specifications. The equipment calibration program provides baseline data that can track the operating proficiency of the equipment and ensure its maintenance. The equipment calibration program requires calibration of all of the industrial hygiene monitoring devices, ensuring that equipment integrity is maintained and that all data produced from the equipment is of the highest standard. It also specifies requirements to track expiration dates for equipment and supplies used in association with calibrated instruments. All equipment that is not in calibration will be tagged out of use.

### 26.4.1. Direct-Reading Instruments

Direct-reading instruments combine sampling and analytical functions and usually display results rapidly. These instruments (for example, Bios Dry Cal, sound-level meter, and Drager CMS) are capable of storing continuous data and displaying that data on command with averages for selected time intervals. When the instrument is received from the manufacturer, it shall have a calibration certificate depicting the following:

- a. the make, model, and serial number of the instrument,
- b. the instrument calibration date and the scheduled date of recalibration,
- c. a statement by the manufacturer stating the instrument meets or exceeds the required specifications that it will be used for, and
- d. a manufacturer's representative's signature on the certificate to authenticate calibration of the instrument.

#### **NOTE**

Upon completion of calibration, the instrument must be tagged or marked in a semipermanent manner to indicate the calibration information. Equipment that is out of calibration and requires calibration by the manufacturer will **be marked with a** "Danger - Do Not Use" tag. The manufacturer determines when calibration of direct-reading instruments is required. The manufacturer also determines when supplies required for instrument calibration expire. However, if an instrument is damaged or its function is compromised, it will be sent to the manufacturer for recalibration before being used again. Once calibration certificates are received, the IH will file them and update the IH equipment database to reflect the most recent calibration. All IH equipment will be audited by the IH staff on a quarterly basis to verify up-to-date calibration and current supplies. The site will be responsible for replacing needed supplies for instruments housed at the site and IHs will be responsible for those kept in New Orleans.

## 26.4.2. Calibration of Instruments

A functional (bump) test or full calibration of direct reading portable gas monitors shall be made before each day's use or in accordance with the unit's operation manual using the appropriate gas(es) for the unit. Any instrument which fails a functional (bump) test must be adjusted by means of full calibration by the vendor as specified by the manufacturer.

## 26.4.3. General Rules Regarding Instrument Calibration

Following are a few basic instrument calibration rules.

- a. Follow the manufacturer's guidelines for proper calibration. No job, including instrument calibration, can be performed properly or safely without the right tools. The type and concentration of calibration gas, sample tubing, flow regulators, and calibration adapters are key links in the calibration chain. Using equipment provided by the original manufacturer will ensure a proper start to every calibration.
- b. Never use calibration gas for calibration after its expiration date. The most important tool used in calibration is the gas. The instrument can only be as accurate as the gas used to calibrate it. The supplier must provide a traceable certificate of analysis for every calibration gas cylinder. The concentration of calibration gas, particularly the concentration of reactive gases such as hydrogen sulfide or chlorine, will only remain stable for a finite period of time.

### **NOTE**

Equipment that requires calibration by the user prior to use shall be tagged "Must be calibrated before use."

c. Workers that calibrate instruments must be trained on the proper methods of calibration.

### 26.5. PERSONAL H<sub>2</sub>S MONITOR PROCEDURE

### 26.5.1. Purpose and Scope

The purpose of this procedure is to provide guidance for issuing, using, testing and care of the Personal H<sub>2</sub>S Monitors (example, Gas Alert Extreme). Each unit will be assigned a site specific control number for accountability purposes.

- a. When the task description on the Safe Work Permit (SWP) indicates that there is a reasonable possibility for exposure to crude oil, unit(s) will be issued to the personnel assigned to perform the task.
- b. Examples of tasks where the use of the monitor is required include, but are not limited to:
  - 1. Oil sample collection and disposal.

### **NOTE**

Chemists working with crude oil inside fume hoods are not required to wear a personal monitor as long as hood is on and operational.

- 2. Opening pig launcher/receivers.
- 3. Frac tank operations to include attaching or removing hoses that have been exposed to crude oil and climbing the stairs/ladder to inspect the hatch or sight glass.
- 4. Workover activities.
- 5. Line breaking.
- 6. Using the vacuum truck with crude oil.
- 7. Depressurization using any other method than hard piping to a stationary tank.
- 8. Any task that requires a crude oil line to be opened.
- 9. Inside the Degas facility.
- 10. Gauging.
- 11. Maintenance tasks with the probability of exposure to crude oil.
- 12. Working/walking around High Pressure Pump Pad area while Shell pig launcher at Bayou Choctaw is open.

## 26.5.2. Procedures

- a. Safe Work Permit initiators will identify if the task to be performed has the potential to expose employees to crude oil and check H<sub>2</sub>S monitors in Block 13 of the SWP.
- b. Initiators shall issue the H<sub>2</sub>S monitor when it is specified on the SWP and the JHA for tasks that are not covered by a SWP (gauging, getting oil samples, etc.) that have the potential for exposure to H<sub>2</sub>S. If initiators do not maintain their own monitors, they will check them out from the operations department. The issuance of H<sub>2</sub>S monitors will be noted by checking H<sub>2</sub>S monitors in Block 13 (Additional Safety/PPE Requirements) of the SWP.
- c. Personnel who do not have an assigned H<sub>2</sub>S monitor will sign out the monitors on a log or written record. The log will note the specific control number of the monitor, the user's name and the SWP number or the work order number if there is no SWP along with date and times. Personnel are accountable for the use, care and sign-in (return) of the monitor at the end of the work day. Employees shall report damage or problems with the monitor immediately to the Control Room and to the issuer of the equipment.
- d. Personnel being issued a personal H<sub>2</sub>S monitor for the first time will be provided a required read and sign file on how to operate the monitor and how to respond to an alarm. The read file will be with the monitor log book. In order to receive the monitor the user will initial that they have read and understood the file.
- e. H<sub>2</sub>S monitors should be placed on the lower bottom front hemisphere within a radius of approximately six to nine inches from the worker's nose and mouth ("Breathing Zone").
- f. If the monitor alarms, affected personnel will report the event to the Control Room who will inturn notify the Site Safety Specialist and the Operations and Maintenance Managers. Appropriate mitigation actions will be taken.
- g. The Site Safety Specialist will notify New Orleans Safety and Health of the alarm event and provide date/time, H<sub>2</sub>S concentration, and duration of alarm and what action has been taken. If unable to download the data, the unit will be sent to New Orleans Industrial Hygiene.
- h. The Personal H<sub>2</sub>S Monitor and the SWP will be signed back in upon completion of the task or at the end of the SWP duration.

# 26.5.3. Location and Use of H<sub>2</sub>S Monitor for Protective Force

- a. One H<sub>2</sub>S Monitor will be maintained for each Protective Force vehicle in an area away from direct sunlight and/or high heat areas.
- b. H<sub>2</sub>S Monitors are used by Protection Force personnel as an early warning device in an emergency.
- c. If the unit alarms, the Protective Force personnel shall vacate the area in such a manner as to not expose themselves to the plume (up-wind or cross-wind).
- d. The Protective Force personnel will adjust evacuation routes as necessary to keep themselves and other affected personnel out of the plume or area where H<sub>2</sub>S was detected at 10 ppm or more.
- e. The Protective Forces will report the alarm to and maintain contact with the Control Room during the emergency so that adjusted evacuation routes can be communicated to other site personnel.

### 26.6. TABLES: INDUSTRIAL HYGIENE PROGRAM

TABLE 26.1. INDUSTRIAL HYGIENE PROGRAM RESPONSIBILITIES		
Position or Department	Responsibility	
Safety and Health Department (New	a. Conduct industrial hygiene walkthroughs at all sites, scheduled with the site in advance.	
Orleans)	<ul> <li>b. Perform industrial hygiene-related assessments during Organizational Assessments (OAs).</li> </ul>	
	c. Provide technical assistance for exposure assessments of identified hazardous conditions at the sites.	
	d. Conduct quantitative exposure assessments and administer a routine monitoring plan.	
	e. Recommend control measures to reduce the health risks associated with identified hazards.	
	f. Maintain documentation of evaluation studies, monitoring results, and of the disposition of recognized hazardous conditions.	
	<ul> <li>g. Assist the Performance Development Department (PDD) in developing training course requirements for industrial hygiene-related courses on subjects such as health hazard awareness, conducting qualitative exposure assessments, respiratory protection, and hazard communication.</li> <li>h. Maintain ESS.</li> </ul>	
	i. Review MOC subcontractor submittals for written health and safety programs for adequacy and operate in an oversight capacity to ensure health and safety program requirements are met.	
	j. Audit all New Orleans instrument calibration quarterly to determine its stability and/or operating condition. Instruments out of calibration will be marked with a tag stating "Danger - Do Not Use".	
	k. Safety and Health personnel will be trained on the operation of the instrument before attempting to calibrate it, and follow an approved procedure or setup without deviation.	
	I. Always perform calibration when an instrument has been repaired, damaged, changed, or mishandled, and before use. Recalibration will	

TADI E 26 A	Change 5 I. INDUSTRIAL HYGIENE PROGRAM RESPONSIBILITIES
Position or Department	Responsibility
•	be performed if there are questions regarding accuracy of the results.  m. When post-calibration data differs from pre-calibration data, the cause of that change will be determined before accepting the data or repeating the procedure.  n. Provide information to the Executive Safety Council and Human Capital on matters relating to employee health.
Line Supervisor/ Foreman	<ul> <li>a. Assist in identifying health hazards by anticipating and recognizing conditions that could be hazardous to an employee's health or wellbeing, and notify the Site Safety Specialist, as necessary.</li> <li>b. Ensure employees are aware of and understand the types of health hazards they may encounter on the SPR.</li> <li>c. Before job assignment, ensure employees are trained in work practices and procedures established to maintain health and safety.</li> <li>d. Ensure recommended hazard control measures and procedures are followed.</li> </ul>
Safety Monitors	Trained safety monitors can assist the Site Safety Specialist in conducting routine qualitative monitoring of identified health hazards.
Site Safety Specialist	<ul> <li>a. Identify potential new exposures and report to industrial hygienists.</li> <li>b. Assist in qualitative exposure assessments, routine inspections for health hazards, limited qualitative monitoring, and quantitative monitoring if they have been trained to do so.</li> <li>c. Provide technical assistance and coordination for all site quantitative exposure assessments conducted by the New Orleans IH staff.</li> <li>d. Recommend health hazard controls (such as preventive measures training and education), engineering controls, administrative controls, and PPE for the reduction of health risks associated with identified health hazards.</li> <li>e. Ensure employees and supervisors are aware of and understand the types of health hazards they may encounter on the SPR.</li> <li>f. Request assistance from the New Orleans industrial hygienist for health hazards that require further evaluation and/or mitigation.</li> <li>g. Post the summary statement of results of monitoring provided by industrial hygienists in the work area of the SEG that was monitored.</li> </ul>
Employees	<ul> <li>a. Anticipate and recognize health hazards and be familiar with methods used to control hazards associated with tasks they perform.</li> <li>b. Uses all prescribed personal protective equipment and follow the recommended control procedures. Not using PPE that is assigned and provided is a violation of company procedure and is subject to disciplinary action.</li> <li>c. Notify supervisor immediately about potential exposures to harmful agents and work conditions or practices that may cause illness or injury.</li> </ul>
Custodian of Industrial Hygiene Equipment at Sites	<ul> <li>a. Maintain instrument in operating condition and calibrated.</li> <li>b. Always perform calibration when an instrument has been repaired, damaged, changed, or mishandled, and before use. Recalibration will be performed if there are questions regarding accuracy of the results.</li> <li>c. Check expiration dates for equipment and supplies used in association</li> </ul>

TABLE 26.1. INDUSTRIAL HYGIENE PROGRAM RESPONSIBILITIES	
Position or Department	Responsibility
	with calibrated instruments. Order replacements when needed.
Users of Industrial Hygiene Equipment	<ul><li>a. Be trained on operating the instrument before attempting to calibrate it, and follow approved procedures or setup without deviation.</li><li>b. When using the instrument, pay close attention to detail to ensure that the equipment is operating within the manufacturer's specifications.</li></ul>

TABLE 26.2. GAS ALERT EXTREME H2S MONITOR PROCEDURE RESPONSIBILITIES		
Position or Department	Responsibility	
SWP Initiator	a. Ensure that when a H <sub>2</sub> S monitor is needed it is noted in Block 13 (Additional Safety/PPE Requirements) of the SWP.it is noted in Block 13 (Additional Safety/PPE Requirements) of the SWP.	
Operations Manager Designee	a. Ensure use of H <sub>2</sub> S Monitors is controlled, tracked and inventoried.	
Control Room Operator	<ul> <li>Notify the Site Safety Specialist and the Operations Manager and the Maintenance Managers of all alarm events reported by employees or protective force.</li> </ul>	
Maintenance Manager	a. Ensure maintenance personnel assigned to tasks where the potential for exposure to H <sub>2</sub> S exists are aware of the requirements for the use of and the proper response to a H <sub>2</sub> S Monitor alarm.	
Supervisors/Foreman and Technical Representatives	<ul> <li>a. Ensure personnel assigned tasks where the potential for exposure to H<sub>2</sub>S exists are aware of the requirements for the use of the monitor, how to operate the monitor, and the proper response to a Gas Alert Monitor alarm.</li> <li>b. Notify the Site Safety Specialist when an employee's Gas Alert Monitor alarms.</li> </ul>	
Protective Force Captain	a. Ensure the monitors assigned to the protective force are maintained in security vehicles as required and that Protective Force personnel are aware of the requirements for use in the event of a spill or crude oil emergency.	
Site Safety Specialist	a. Notify New Orleans Safety and Health of an alarm event and provide date/time, H <sub>2</sub> S concentration, and duration of alarm, if possible. Describe the control action taken.	
Employees	<ul> <li>a. Wear H<sub>2</sub>S Monitors when the potential for H<sub>2</sub>S exposure exists.</li> <li>b. Report an alarm event to the Control Room and their supervisor and leave the area.</li> <li>c. Be accountable for the use, care and sign-out/sign-in of the Gas Alert Monitor. Report any problems with the unit to the operations department.</li> </ul>	